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March 4, 2020

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Oral *Ex Parte* Notice
ET Docket No. 18-295
GN Docket Nos. 17-183

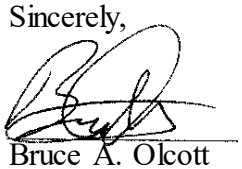
Dear Ms. Dortch:

On March 2, 2020, representative of The Boeing Company ("Boeing") met in separate meetings with Aaron Goldberger, Wireless and International Advisor to Chairman Pai, and William Davenport, Chief of Staff and Senior Legal Advisor to Commissioner Starks. Participating in the meetings on behalf of Boeing were Audrey Allison, Joseph Cramer and the undersigned.

The parties discussed the importance of authorizing the use of unlicensed devices that are able to operate in the 6 GHz band on aircraft in flight above 10,000 feet without the use of automated frequency coordination. The parties also briefly discussed the technical materials that Boeing has submitted in the docket documenting that allowing unlicensed 6 GHz devices on aircraft will not result in harmful interference to incumbent 6 GHz licensees. The discussion tracked closely with the attached presentation, which was distributed during the meetings.

Thank you for your attention to this matter. Please contact the undersigned if you have any questions.

Sincerely,



Bruce A. Olcott
Counsel to The Boeing Company

6 GHz Unlicensed Devices in Aircraft

March 2, 2020

About The Boeing Company

- **Boeing is the world's largest aerospace company and a leading manufacturer of jetliners, defense, space and security systems**
- **Boeing leads the development of unmanned and autonomous systems enabling the transportation ecosystem of the future**
- **Boeing is the top U.S. exporter of aerospace products and services, significantly contributing to the U.S. economy**
- **Boeing's global reach includes customers in about 150 countries and employees and operations in more than 65 countries**

Unlicensed Spectrum

- **Boeing relies on unlicensed WiFi availability to support our factory, facilities and site operations**
  - **Channel availability and use are tightly managed within Boeing to maximize efficiency of operations**
  - **Insufficient channel availability forces competition between emerging factory technologies and incumbent factory users/systems**
- **WiFi usage on commercial aircraft continues to expand**
  - **WiGig use on aircraft is being tested on Boeing eco-Demonstrator and targeted for inclusion on the Boeing 777-9**

IN OUR FACTORIES

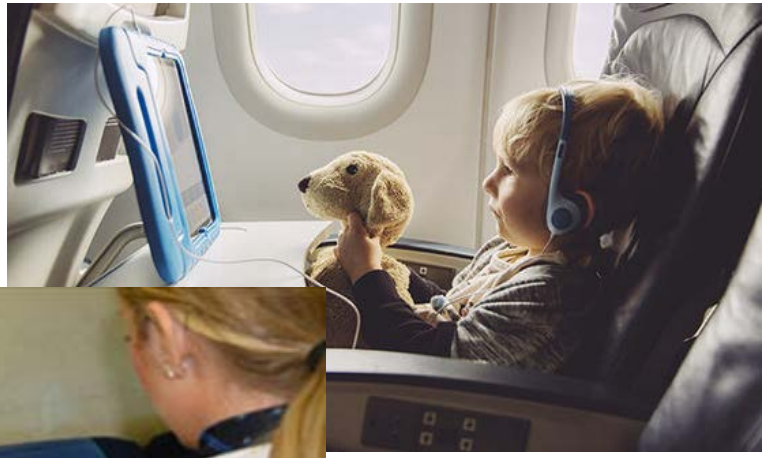
- Enables the 21st Century Factory
  - Automation
  - Robotics
  - Part tracking and controls
- Blend of unlicensed technologies
  - WiFi, Zigbee, Bluetooth, RFID

ON OUR PRODUCTS

- Aircraft capacity and connectivity support:
  - Crew management and information systems
  - Passenger entertainment network connectivity
- WiFi, WiGig, Zigbee, Bluetooth
- Wireless aircraft systems and IoT Developing Internet of Things applications
- Maintenance applications

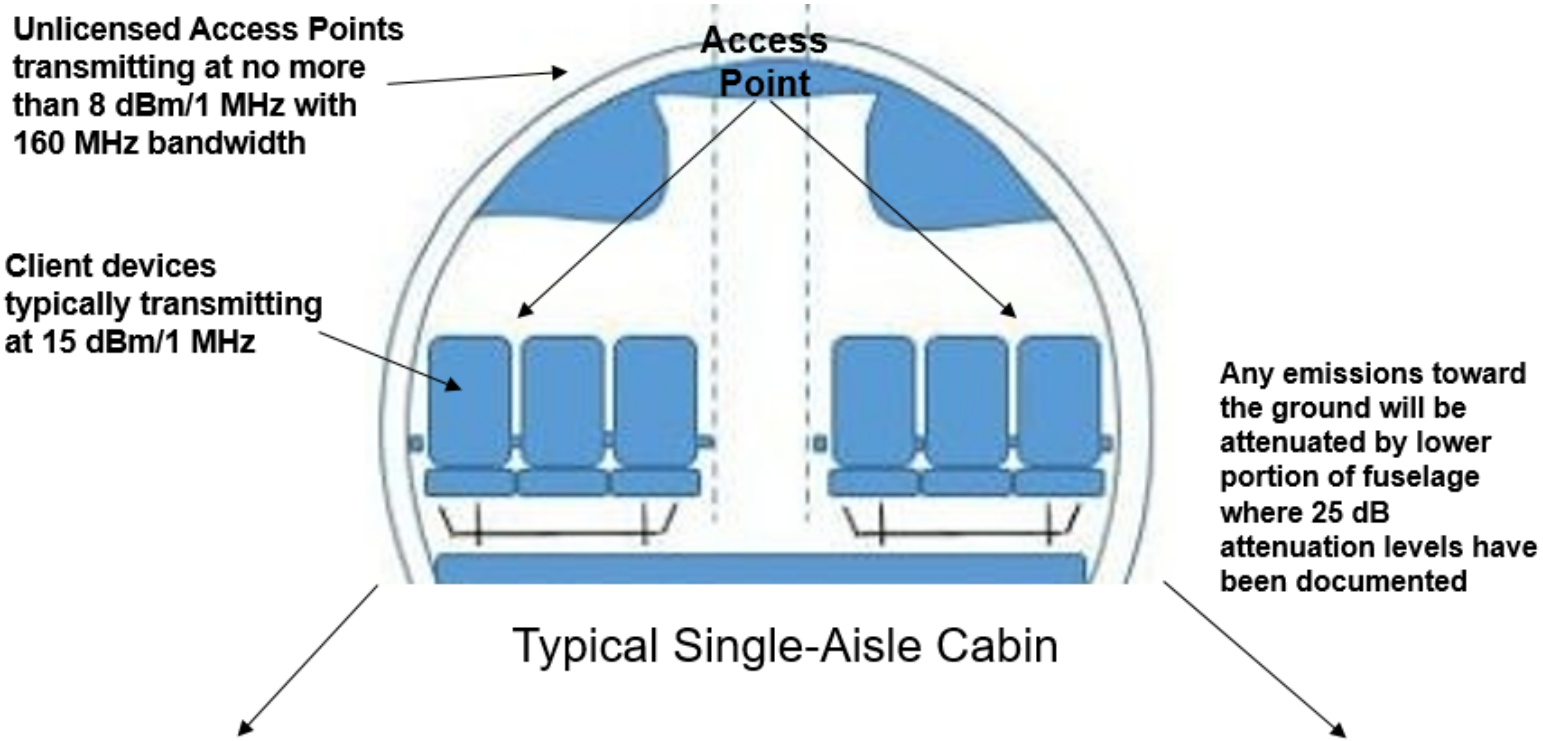
A Substantial Need Exists to Permit Unlicensed Use Inside Aircraft Using the U-NII-5 Through U-NII-8 Bands

- **Airlines and their passengers want to use wireless devices to access video, audio and internet content and for inflight IoT**
  - **Boeing aircraft already use both the 2.4 and 5 GHz unlicensed bands to support the needs of passengers and flight crew**
  - **Access to more unlicensed spectrum is needed to accommodate new applications and continuously growing demand**



Unlicensed 6 GHz Devices Can Operate on Aircraft Above 10,000 Feet Without Interfering With Incumbent Services

- **Wireless access points operate at relatively low power on aircraft**
- **The aircraft fuselage provides substantial signal attenuation**



Unlicensed 6 GHz Devices Should be Permitted on Aircraft Above 10,000 Feet Without Automated Frequency Coordination

- **AFC technology is entirely unnecessary on aircraft above 10,000 feet to protect incumbent terrestrial receivers from interference**
- **Given the long lead times to design, secure FAA approval, and install new equipment in thousands of aircraft, approval to use the U-NII-5 through U-NII-8 bands on aircraft is needed promptly**